

REMARKS/ARGUMENTS

Claims 1-10 and 12-52 stand in the present application. Applicants note with appreciation the Examiner's allowance of claims 12-16, 18, 29-34 and 44-52, but respectfully submit that in view of the following remarks that all of the claims are in condition for allowance.

In the Office Action, the Examiner has rejected claims 1-7, 19-25 and 35-42 under 35 U.S.C. § 102(b) as being anticipated by Harrington et al. and has rejected claims 8-10, 17, 26-28 and 43 under 35 U.S.C. § 103(a) as being unpatentable over Harrington et al. in view of Yamashita et al. Applicants respectfully traverse the Examiner's §§ 102 and 103 rejections of the claims.

Applicants' invention is directed to a fluid flow measuring apparatus which is compact yet highly accurate irrespective of the fluid flow direction. A key feature of Applicants' invention is that a flow amount detector is disposed at only one of an upstream side and a downstream side of the heater with respect to fluid flow direction. Each one of the rejected independent claims 1, 19 and 35 clearly recites that a flow amount detector is disposed at only one of an upstream side and a downstream side of the heater with respect to the direction of fluid flow.

In contrast, Harrington et al. discloses a fluid flow sensor comprising two resistive heaters 20, 22 and four detectors 24-30, with two detectors on each side of each heater. More particularly, the cited reference states at column 3, lines 31-46:

The exposed surface of the isolation layer carries the sensing elements which comprises two resistive heaters 20, 22 and four detectors 24-30, two on each side of each heater all connected to pads 31 at the periphery of the chip. Each detector comprises a thermocouple having one junction near a heater and the other junction remote from the heater. The primary heater 20 extends perpendicular to the direction of airflow (shown by the arrow) and detectors 24 and 26 are just downstream and upstream, respectively, from the heater 20 and are oriented parallel to the airflow direction. The reference heater 22 and its associated detectors 28 and 30 are relatively arranged like the elements 20, 24 and 26, but are turned 90° with the heater 22 parallel to the airflow direction. (emphasis supplied.)

Thus, Harrington et al. clearly discloses two detectors disposed both upstream and downstream of the heater. Therefore, Harrington et al. cannot meet the limitations of the rejected claims in which a detector is only disposed at either the upstream or downstream side of the heater. Moreover, since Yamashita et al. does not solve the deficiency noted above with respect to Harrington et al., the claims are not obvious over the combination of Harrington et al. with Yamashita et al.

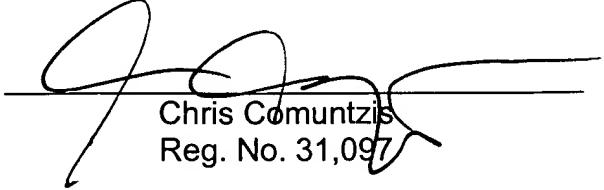
Therefore, in view of the above remarks, it is respectfully requested that the application be reconsidered and that all of claims 1-10 and 12-52, standing in the application, be allowed and that the case be passed to issue. If there are any other issues remaining which the Examiner believes could be resolved through either a

KOHNO et al.
Appl. No. 09/421,086
February 13, 2004

supplemental response or an Examiner's amendment, the Examiner is respectfully requested to contact the undersigned at the local telephone exchange indicated below.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: 

Chris Comuntzis
Reg. No. 31,097

CC:lmr
1100 North Glebe Road, 8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100